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EVALUATION OF THE GRANT PROGRAM FOR RURAL HEALTH CARE TRANSITION EIGHTH SEMI-ANNUAL PROGRESS REPORT

February 1, 1994

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EXECUTIVE SUMMARY

Congress charged the Health Care Financing Administration (HCFA) with implementing a program of Rural Health Care Transition (RHCT) grants (Omnibus Budget Reconciliation Act of 1987: P.L. 100-203) and then expanding the program (Omnibus Budget Reconciliation Act of 1989: P.L. 101-239). The goal of this program is to help small (fewer than 100 beds) rural hospitals improve their financial stability and management capacity.

The program was implemented in September 1989 and expanded in September 1990, September 1991, and September 1992, and September 1993. Since the program began, 746 RHCT grants have been awarded to 684 small rural hospitals: 184 grants in 1989, 212 in 1990, 187 in 1991, and 163 in 1992. More than one-third of the small rural hospitals in the United States have received program grants, and Congress has authorized \$74 million over the past 4 years for the program.

The 1989 grantees completed their grant projects in September 1992. Currently, 512 active grantees have 3-year grants and are progressing with their projects.

The legislation mandated that the HCFA Administrator report to Congress every 6 months on the program's progress. This document is the eighth semi-annual progress report. In it, we describe the progress of the 1990 grantees after 30 months, the 1991 grantees after 15 months, and the 1992 grantees after 3 months. It is based on monitoring reports submitted by the grantees. We also focus on several special topics: approaches to physician recruiting adopted by the 1991 grantees; the effects of changes in management on the progress and finances of 1991 and 1992 grantees; and the size, management, staffing, and finances of the 1992 grantees at award. These special topics are included for several reasons. First, data are now available from a physician recruitment supplement questionnaire for the 1991 grantees. Second, information is available from supplemental interviews conducted for selected 1991 and 1992 grantees. Third, we now have baseline data for the 1992 grantees.

SPECIAL FOCUS: 1991 GRANTEE APPROACHES TO PHYSICIAN RECRUITING

Rural hospitals expend much effort recruiting physicians to meet local needs. Three-quarters of the 1991 grantees were recruiting physicians 9 months after award. A key issue for policymakers is whether the grantee communities have realistic expectations about the reimbursement packages they need to offer physicians to successfully recruit them. If the grantee communities are not offering competitive reimbursement packages, including pecuniary and nonpecuniary benefits, then the communities are unlikely to successfully recruit a physician even if their hospitals are given grant funds to improve their recruitment

strategies. To examine this issue, we used data collected with a special physician recruitment form designed for the 1991 grantees.

The grantees appeared to be trying to recruit needed physicians. Most communities were recruiting in response to recent losses (68 percent of grantees) or expected losses (50 percent). Only 38 percent were recruiting on the basis of a formal assessment of need.

Like hospitals nationwide, most grantees offered recruits inducements such as income guarantees (90 percent), paying for relocation expenses (85 percent), paying for malpractice insurance premiums (56 percent), and subsidizing office space (54 percent). Nearly half paid for fringe benefits and continuing medical education expenses.

For general and family practitioners and pediatricians, the levels of guaranteed income offered by grantee communities and the expected number of visits per week (reported by a minority of grantees that assessed need formally) were in line with average practice opportunities. For surgical specialists, the levels of guaranteed income and expected number of visits per week were lower than national averages. Consequently, finding surgeons who want a rural practice was likely to take longer because practice opportunities were probably better elsewhere.

Onerous call schedules can be a deterrent to recruiting physicians. The 1991 grantees required physicians to take call at the hospital reported an average of 3 weekend days and nights and 7 weekday nights per month of required call per physician.

In summary, the grantees appeared to be offering physician candidates competitive reimbursement packages. The median income guarantee, perquisites, and expected number of visits per week were all similar to national levels for general and family practitioners and pediatricians. For surgeons, the grantees offered lower income guarantees, but also expected the physician to make fewer visits per week. However, because we do not have national data on the amount of call duty required, we can not determine if call schedules hindered grantees trying to recruit physicians.

SPECIAL FOCUS: EFFECTS OF MANAGEMENT CHANGE ON PROJECT PROGRESS FOR THE 1991 AND 1992 GRANTEES

Grantees from earlier years had reported that management changes disrupted project progress. To evaluate the effect of management changes on 1991 and 1992 grantees' progress and financial status, we interviewed 36 grantees that had experienced a change in affiliation, management contract, or administrator since receiving their grants. Only 3 of the 20 1991 grantees interviewed reported falling behind schedule as a result of the management change, while 5 of the 16 1992 grantees interviewed reported that the management change hindered

their projects' progress. Among the 1992 grantees, the continuity of the project coordinator seemed more important for meeting project schedules than continuity of the hospital administration.

Eight of the 10 1991 hospitals that either joined or left a multihospital system or started or dropped a management contract had done so because of financial problems. Half of the 20 1991 grantees had improved their financial status as a result of management change; half reported that management change had no effect on their financial status. However, 10 of the 16 1992 grantees said that the new administrator had already improved hospital finances, which should facilitate grant project progress in the future.

GRANTEE STATUS

Of the 562 hospitals awarded grants in 1990, 1991, and 1992, 513 are still active while 49 no longer have grants. Two of the 49 hospitals completed their projects, and 9 gave up their grants because they closed.

During the past 6 months, the status of only three grantees has changed. Two hospitals closed and one voluntarily relinquished its grant. The status of 1989, 1990, 1991, and 1992 grantees as of March 31, 1993, is as follows:

Status	1989	1990	1991	1992
Months Since Award	--	30	18	6
Continuing	--	180	171	161
Completed	174	2	0	0
Discontinuations	6	24	13	0
Hospital Closed	4	6	2	2
Total Awards	184	212	187	163
Total Fiscal Year Funding (Millions)	\$8.3	\$17.8	\$24.4	\$23.0

1990 GRANTEES: PROGRESS AFTER 30 MONTHS

The 1990 grantees' projects have been operational for 30 months. This long operational period has given grantees enough time to make substantial progress, even with projects that originally fell behind schedule.

Ten percent of grantees reported completing all activities. The most frequent grant-supported activities were recruiting (67 percent of grantees); equipment purchases (56 percent); community education, wellness, and prevention programs (48 percent); and staff training and development (47 percent). The activities most likely to have been completed after 30 months are planning and market analyses, equipment purchases, and construction. However, among the construction projects which were not complete, a significant proportion were behind schedule.

1991 GRANTEES: PROGRESS AFTER 15 MONTHS

After 15 months, the majority of 1991 grantees were on schedule. The most frequently grant-supported activities were recruiting (64 percent of grantees); staff training and development (57 percent); and equipment purchases (56 percent). Grantees have finished some activities, especially those over which they have a high degree of control, such as equipment purchases (28 percent completed this activity). But 30 percent have also concluded construction activities and 22 percent have completed recruiting activities. Despite their progress, the grantees reported being behind schedule in some activities, especially recruiting health professionals and establishing some new services--such as clinics and swing beds.

1992 GRANTEES: CHARACTERISTICS AT AWARD AND PROGRESS AFTER 3 MONTHS

At award, the 1992 grantees were similar to grantees in earlier years in most respects--and some of the 1989 grantees received new awards in 1992. The 1992 grantees were a little smaller than 1989 grantees and less likely to belong to multihospital systems, probably as a result of their location, which was more remote than that of 1989 grantees, on average. They also had lower occupancy rates (48 percent were less than half full on average, compared with 41 percent of 1989 grantees). These lower rates may be related to their smaller size, since occupancy tends to be lower when there are fewer beds.

There were a few distinct differences between services available at the 1992 grantee hospitals at award and those offered by 1989 grantees. Seventy-four percent of 1992 grantees had swing beds (12 percent more than the 1989 grantees). This higher rate is probably

related to the larger number of 1992 grantees with fewer than 50 staffed beds; these grantees had fewer administrative requirements to introduce swing beds. Nine percent fewer 1992 grantees had intensive care units (58 percent), probably because they are smaller hospitals, but perhaps also because of continued reductions in inpatient services between 1989 and 1992. Greater differences exist in the availability of two high-technology services. Seventy-two percent of all 1992 grantees now offer computed axial tomography (up 31 percent from 1989 grantees). Twenty-two percent of 1992 grantees offer magnetic resonance imaging (two and a half times more than 1989 grantees). The increased availability probably reflects growth in the number of mobile units.

Three months into their projects, none of the 1992 grantees had completed any activities. Similar to the 1991 grantees, the most frequently pursued project activities were equipment purchases (57 percent), staff training and development (55 percent), and recruiting (50 percent). Two-thirds are on or ahead of schedule with all project activities. The activities grantees most frequently reported as behind schedule were recruiting health professionals and construction--two ventures over which grantees do not have complete control.

I. INTRODUCTION

A. LEGISLATIVE HISTORY AND PURPOSE OF THE GRANT PROGRAM

Congressional concerns about the financial and operational viability of rural hospitals and the access of rural residents to health care led to the enactment of the Grant Program for Rural Health Care Transition. In the legislation, Congress mandated that the Health Care Financing Administration (HCFA):

"Establish a program of grants to assist eligible small rural hospitals and their communities in the planning and implementation of projects to modify the type and extent of services such hospitals provide in order to adjust for one or more of the following factors:

- (1) Changes in clinical practice patterns
- (2) Changes in service populations
- (3) Declining demand for acute-care inpatient hospital capacity
- (4) Declining ability to provide appropriate staffing for inpatient hospitals
- (5) Increasing demand for ambulatory and emergency services
- (6) Increasing demand for appropriate integration of community health services
- (7) The need for adequate access to emergency care and inpatient care in areas in which a number of underutilized hospital beds are being eliminated . . .

Each demonstration project . . . shall demonstrate methods of strengthening the financial and managerial capability of the hospitals involved to provide necessary services."¹

¹Omnibus Budget Reconciliation Act of 1987 (P.L. 100-203), Section 4005(e).

Furthermore, the legislation required the HCFA Administrator to report on the progress of the program every 6 months.² This is the eighth report in this series of reports mandated by Congress.

The legislation further stipulated that "a grant may not exceed \$50,000 a year and may not exceed a term of two years."³ Funds could be spent for any expense incurred in planning and implementing a project, with two exceptions: no part of the grant funds could be used to retire debt incurred before the grant award, and no more than one-third of the grant funds could be used to cover capital-related costs. To be eligible for a grant, a hospital had to be a non-Federal, nonproprietary, short-term, general acute-care hospital with fewer than 100 beds and had to be classified as a rural hospital under Medicare's Prospective Payment System.⁴

In the Omnibus Budget Reconciliation Act of 1989 (P.L. 101-239), Congress enacted two modifications to the Rural Health Care Transition (RHCT) grant program. First, the grant period for hospitals receiving an award after fiscal year 1989 was extended from 2 to 3 years. Second, hospitals that use their grants to convert to rural primary-care hospitals (as described in section 1820 of the Social Security Act) or to develop a rural health network (as defined in section 1820(g) of the Social Security Act) are not limited to the one-third capital expenditure maximum.

²This progress report was prepared by Mathematica Policy Research, Inc., under contracts 500-87-0028-12 and 500-91-0075 to the Health Care Financing Administration.

³Section 4005(e)(6) of the Act.

⁴Section 4005(e)(2) of the Act.

The amount of funds appropriated by Congress for the program has varied over the years:

<u>Fiscal Year</u>	<u>Amount</u>
1989	\$ 8.3 million
1990	\$17.8 million
1991	\$24.4 million
1992	\$23.0 million

The funds increased from 1989 through 1991 consistent with increases in the number of active grantees each year.

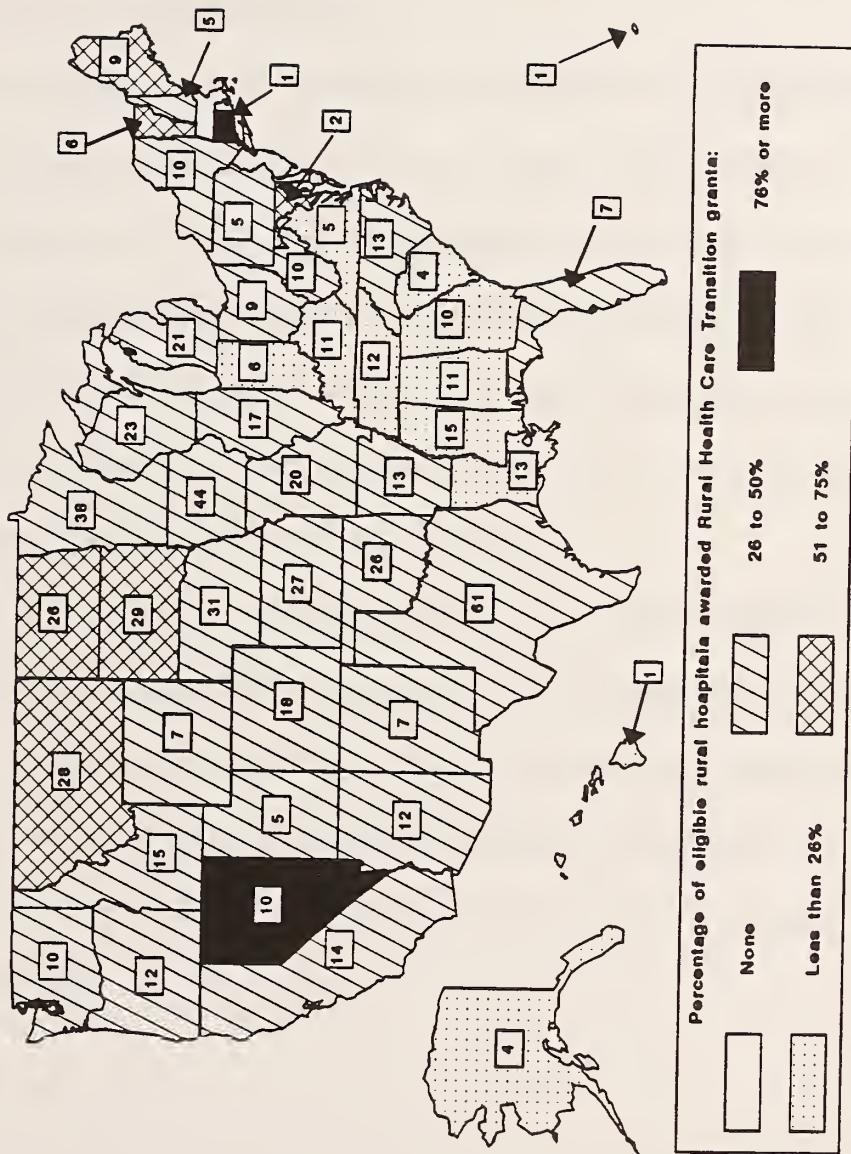
B. THE NUMBER AND DISTRIBUTION OF GRANTEES

HCFA uses two criteria to select the RHCT grant recipients: (1) the equitable distribution of funds across States; and (2) reviewers' assessment of project merits. After these criteria are applied, the bulk of the funds are first distributed across States in proportion to the number of eligible hospitals. Awards are then made within each State on the basis of merit. The remaining funds are awarded on the basis of merit without regard to State. Under these criteria, 684 hospitals (35 percent of eligible rural hospitals) have participated in the RHCT grant program since its inception in 1989. The State-by-State distribution of the number and percentage of hospitals receiving RHCT grant awards is shown in Figure I.1.⁵

⁵There are currently 1,960 eligible rural hospitals nationwide. In 1991, Connecticut's only eligible hospital received an RHCT grant award. In 1992, this hospital was reclassified as urban; consequently, Connecticut currently has no eligible hospitals. We included this hospital in the list of eligible hospitals in Figure I.1, however, to calculate Connecticut's percentage of eligible hospitals awarded a grant since 1989.

FIGURE I.1

NUMBER AND PERCENTAGE OF ELIGIBLE HOSPITALS
AWARDED RURAL HEALTH CARE TRANSITION
GRANTS SINCE 1989, BY STATE



NOTE: The number of hospitals with Rural Health Care Transition grants is shown on the map. A total of 684 hospitals have received Rural Health Care Transition grants since 1989. Delaware, Rhode Island and New Jersey do not have eligible hospitals.

As Figure I.1 shows, Texas has had the largest number of hospitals awarded RHCT grants (61), followed by Iowa and Minnesota with 44 and 38 grant recipients, respectively. Because of the way grantees have been selected, the absolute number of grantees in a State reflects its share of the nation's eligible hospitals. (Texas ranks first, Minnesota ranks third, and Iowa ranks fourth in number of eligible hospitals.)

On the other hand, the *percentage* of eligible hospitals awarded a grant within a particular State may reflect a more organized effort to pursue grants. The percentage of winners is affected by the number and quality of grant applications. An analysis of the percentage of eligible hospitals with grants in each State shows that States with more than 50 percent of the eligible hospitals participating in the grant program are generally clustered in three areas of the country: New England, the Northern plains, and Nevada. By contrast, States with the lowest program participation rates are located in the South.

These differences suggest that the aggressiveness with which hospitals pursue RHCT grants may vary by State and region. The impetus for the greater level of effort in some States is unclear. It may reflect efforts of a State hospital association, a regional management, or a multihospital system. It may also reflect the willingness of hospitals in certain areas to form consortia when applying for an RHCT grant, thereby attracting hospitals that may not have otherwise applied.

II. PHYSICIAN RECRUITMENT AMONG THE 1991 GRANTEES--ARE THE GRANTEES REALISTIC?

A. INTRODUCTION

The grantee hospitals view physician shortages as a major problem (Cheh and Wooldridge 1993) and consequently, many of them are recruiting physicians. The likelihood that the grantees will succeed in recruiting depends partly on whether their perceptions are based on assessments of economic demand for physicians' services or need for physicians' services, two distinct concepts. Economic demand for physician services exists when a community wants, would use, and will pay a competitive wage for physician services. Need for physician services exists when communities want, would use, and would benefit from physician services--regardless of the communities' willingness or ability to pay.

This distinction between a need for physician services and a physician shortage based on economic demand is important for hospital decision-making. Even though a community may need physician services, a physician is unlikely to move to or remain in a community if practice opportunities are better elsewhere. Previous research has shown that young physicians are more likely to select counties with higher population growth rates, higher incomes, and better educated populations--all factors that are likely to contribute to more financially successful practices (Langwell et al. 1985). More recently, an analysis of National Health Service Corps physicians in rural areas showed that physicians who earn relatively lower incomes are more likely to leave their practice locations (Pathman et al. 1992). Hence, communities that try to recruit physicians when there is a need, but insufficient economic

demand, are unlikely to successfully recruit a physician even if communities are given grant funds to improve their physician recruitment strategies. And if a grantee in such an area does recruit a physician, the physician is likely to leave that location because financial opportunities will be better elsewhere. Thus, access to health care services will not improve in the long run.

Using data from a special physician recruitment form collected from the 1991 grantees, this chapter examines whether the grantee communities are offering physicians competitive reimbursement packages--including pecuniary benefits (guaranteed salaries and perquisites) and nonpecuniary benefits (workloads and on-call duty). The chapter focuses on these components of the physician recruitment package because the grantee communities control these aspects of the physician reimbursement package. Research has shown that a number of nonwage factors are also important in physician location and retention decisions, including preference for a rural lifestyle, employment opportunities for physicians' spouses, availability of quality education for children, and availability of social and cultural activities (OTA). Grantees (or whoever leads the physician recruitment effort) can do little to change these aspects of their communities in response to a physician candidate's desires. However, salaries and working conditions can be altered, and hence are a better indicator of how realistic the communities' recruitment strategies are.

The majority of the 1991 grantee hospitals (136 of 178 hospitals, or 76 percent) were involved in recruiting physicians to their communities; most were playing a key role. Of those recruiting, 79 percent led the effort, 7 percent worked with local clinics that were in the lead, and 5 percent have joined with other hospitals leading the effort. Because physician

availability influences hospital utilization and financial viability, the high proportion of hospitals leading physician recruitment efforts is not surprising.

B. HOW DID THEY DECIDE MORE PHYSICIANS WERE NEEDED?

There is no question that most physicians want financially viable practices. Communities that bypass careful planning may be misinformed about their communities' needs and ability to pay for physician services. This increases their chances of recruiting physicians to unsustainable practices and ultimately losing these physicians.

Most grantees were trying to recruit in response to physician turnover. Just 38 percent of the grantees recruiting physicians formally assessed community needs for additional doctors.

Of those recruiting in response to turnover, 68 percent decided to recruit because a physician or physicians with a full practice had retired or left the area in the past 2 years. (See Table II.1.) Fifty percent of the grantees decided to recruit because they expected a physician with a full practice to leave the area or retire within the next 2 years. This high level of physician turnover in rural areas is consistent with results reported elsewhere (Kindig et al. 1992; Pathman et al. 1992).

In summary, the 1991 grantees were recruiting physicians largely to replace those who have left or are expected to leave. Those seeking additional physicians assessed needs formally. If these grantees used sound reasoning and data in their assessments, then the physicians that they recruiting were in fact needed.

TABLE II.1
HOW HOSPITALS DECIDED TO RECRUIT ADDITIONAL PHYSICIANS

Basis for Physician Recruitment	Distribution
Conducted a Formal Needs Assessment	38 %
Had a Full-Practice Physician Retire/Leave the Area in the Past 2 Years	68 %
Expect a Full-Practice Physician to Retire/Leave the Area in the Next 2 Years	50 %
General Consensus Only/No Planning Activity	0 %

SOURCE: Physician Recruitment Supplement, 1991 Grantee Second Report, 135 reporting.

NOTE: Percentages will not total 100 percent because more than one category could be selected.

C. WHAT LEVELS OF SALARY AND BENEFITS ARE OFFERED?

Few physicians will locate in rural areas if it means they will earn lower incomes than they can collect elsewhere. If rural communities are unwilling or unable to compensate physicians at the same levels as other areas of the country, it is unlikely that physicians will select rural practices.¹

Typically, physician compensation packages offered in grantee areas were similar to packages offered nationwide. (See Table II.2.) The vast majority of grantees offered income guarantees, which ensure new physicians a given level of income while they are establishing their practices. According to a 1987 study of 114 hospitals conducted by Jackson and Coker, a physician recruitment firm, the majority of hospitals offered an income guarantee as part of their recruiting package (Burda 1990). In addition, 88 percent of the Jackson and Coker sample offered to pay for relocation expenses, as did a similar proportion (85 percent) of the grantees; 52 percent of the Jackson and Coker sample offered free or reduced rent office space, while 54 percent of the grantees offered this perquisite. The only perquisite that the Jackson and Coker sample offered more frequently is low-interest or no-interest loans. This difference may reflect heightened attention to legal issues in physician-hospital financial

¹Some policymakers argue that, in general, rural areas have a lower cost of living and physicians should be willing to accept lower incomes to work in these areas. It is important to note that rural communities offer a different set of amenities that account for this lower cost of living. Physicians may not be willing to accept significantly lower incomes to practice in these areas.

TABLE II.2
PERQUISITES OFFERED TO PHYSICIAN RECRUITS

Perquisites	Percentage of Grantee Communities Offering in 1992 ^a	Percentage in Jackson and Coker Sample (1987)
Income Guarantee	90 %	95 %
Relocation Expenses	85 %	88 %
Malpractice Insurance Premiums	56 %	NA
Free or Reduced Rent Office Space	54 %	52 % ^b
Fringe Benefits	46 %	NA
Continuing Medical Education	44 %	NA
Fully Paid or Subsidized Wages for Office Personnel	35 %	NA
Signing Bonus	29 %	NA
Low-Interest or No-Interest Loans	16 %	36 % ^c
No Perquisites Offered	5 %	NA

SOURCE: Physician Recruitment Supplement, 1991 Grantee Second Report, 134 reporting.

^aAmong hospitals that were recruiting physicians.

^bFree office space only.

^cInterest-free loans only.

NA = Not available.



relationships in recent years, in particular with respect to hospitals and physicians conducting business transactions at fair market values.² As a result, hospitals may be less inclined to offer no-interest loans but may be offering prevailing-rate loans, as some guides to physician recruitment have recommended (Bonds and Pullian 1991).

The grantees also used other perquisites to attract physicians. Over half of those recruiting physicians offered to pay for malpractice insurance premiums, 46 percent offered to provide physicians' fringe benefits, and 44 percent reimbursed physicians for continuing medical education expenses. Only 5 percent offered no perquisites to physician candidates.

Among those offering income guarantees, the amount of the guarantees varied by specialty. The median income guarantee offered for general or family practice, pediatrics, and psychiatry was at least 95 percent of the median physician compensation earned by these practitioners nationwide. (See Table II.3.) The guaranteed incomes offered for surgical specialties, however, were relatively low. The median income guarantee for general surgeons, obstetrician/gynecologists, and orthopedic surgeons was at least 13 percent lower than the median compensation for practitioners in these specialties nationwide; for orthopedic surgeons, it was 36 percent lower. This difference might make it more difficult for rural areas to attract surgical specialists.

²The Jackson and Coker survey was conducted in 1987 while the grantee survey was conducted in 1992. Between these two dates, Congress passed the Medicare and Medicaid Patient Protection Act in 1987 and the Stark Law in 1989. Both pieces of legislation address financial relationships between hospitals and physicians, and specify the need for hospitals and physicians to conduct business transactions at fair market values to avoid legal problems.

TABLE II.3
AVERAGE INCOME GUARANTEES OFFERED
TO PHYSICIANS, BY SPECIALTY

Specialty	Number of Grantees Offering Income Guarantee	Median Income Guarantee Offered by Grantees	Median Physician Compensation ^a
General or Family Practice	109	\$100,000	\$101,836 ^b
Internal Medicine	41	\$100,000	\$110,606
General Surgery	25	\$140,000	\$172,952
Obstetrics and Gynecology	20	\$172,500	\$197,745
Orthopedic Surgery	15	\$175,000	\$274,255
Pediatrics	11	\$100,000	\$104,937
Emergency Medicine	10	\$112,500	\$123,924
Radiology	3	\$193,333	\$246,462 ^c
Psychiatry	1	\$180,000	\$104,170

SOURCE: Physician Recruitment Supplement, 1991 Grantee Second Report, 136 reporting.

NOTE: Incomes offered as of June 1992.

^aThese figures are from the *Physician Compensation and Production Survey: 1992 Report Based on 1991 Data*.

^bFamily practice specialists only.

^cDiagnostic radiology.

D. ARE THE PROJECTED WORK LOADS REALISTIC?

Even if income guarantees are competitive with earnings in other areas, they are a poor inducement if physicians have to work exceedingly hard to earn this level of income after the guarantees have expired.³ Research has shown that physicians in rural areas see more patients per week than their urban counterparts, and adequate personal time plays a significant role in physician location decisions (OTA, p. 317). If physician incomes are relatively low because the communities cannot or will not pay the national average price for health care services, physicians will have to see more patients to earn the same income, relative to practitioners elsewhere. In addition, if a physician is expected to perform only low complexity services, then income will be lower. Again, a physician will need to see more patients to earn the same income as physicians elsewhere.

To determine whether rural physicians are expected to work exceedingly hard, we compared the average number of physician visits per week projected by grantees with the national average number of physician visits. Only 25 percent of the grantees recruiting physicians provided projections on the number of visits needed to sustain the guaranteed physician income, so caution must be used in interpreting these results--hospitals that undertake such formal planning may differ from those that do not. Those that projected physician work load indicated that, to earn the income guarantee, internists and pediatricians will need the same number of patient visits as the average physician nationwide. (See Table II.4.) For general/family practitioners, the projected number of visits needed is actually lower than the national work load level. These data suggest that grantees expected family

³Income guarantees generally last 1 to 3 years.

TABLE II.4
PROJECTED WORK LOAD NEEDED TO SUPPORT
PHYSICIAN INCOME GUARANTEES

Specialty	Grantee Hospitals	Nationwide	
	Average Number of Weekly Visits Needed to Support Income at Guaranteed Level	Average Number of Patient Visits per Week	Percentage Difference
General or Family Practice (N = 29)	111	144 ^a	23 %
Internal Medicine (N = 10)	110	111 ^a	1 %
General Surgery (N = 5)	70	107 ^a	35 %
Obstetrics and Gynecology (N = 6)	78	112 ^a	30 %
Orthopedic Surgery (N = 3)	67	124 ^b	46 %
Pediatrics (N = 4)	133	134 ^a	1 %
Emergency Medicine (N = 1)	46	NA	--
Radiology (N = 1)	231	NA	--

SOURCE: Physician Recruitment Supplement, 1991 Grantee Second Report, 136 reporting.

^a*Socioeconomic Characteristics of Medical Practice, 1992 American Medical Association, 1992.*

^b*Medical Practice in the United States, 1981.*

NA = Not available.

practitioners, internists, and pediatricians to see the same number of or fewer patients than the national average while earning comparable incomes.

For surgical specialties, the projected number of visits needed to earn the income guarantee was substantially lower. (For orthopedic surgeons, the number is 46 percent lower than the national average). These projected visits were consistent with the lower income guarantees offered and suggest that grantees expect surgeons to see fewer patients--and earn less--than surgeons nationwide.

E. HOW OFTEN IS THE PHYSICIAN EXPECTED TO BE ON CALL?

Even if the expected number of visits are similar to those elsewhere, long call hours can be an obstacle to recruitment. The pressures of long call hours at the hospital--that is, being available to come to the hospital should the need arise--may make rural practice unacceptable.⁴ Being on call prohibits physicians from leaving their communities during their otherwise free time and long call hours have anecdotally been cited as a reason for physicians leaving rural practice (Conner et al. 1992).

The majority of the grantee hospitals (78 percent) expected newly recruited physicians to take call at the hospital both during the week and on weekends. (See Table II.5.) Eighty-

⁴Hospital call in a small community can be exacerbated by patients who phone physicians at their homes even when they are not on call at the hospital. Some physicians have complained that they are continuously on call, as patients ask doctors medical questions when they see each other in the community. Although this certainly happens in suburban and urban areas as well, the smaller the community, the greater the probability that a physician will have such encounters.

TABLE II.5
**HOW MUCH ON-CALL DUTY DOES THE HOSPITAL
 EXPECT OF THE PHYSICIAN?**

Periods of On-Call Status	Percentage Expecting Any Call Coverage	Average Number of Days/Nights Per Month
Weekend Days	81 %	3.0
Weekend Nights	81 %	3.2
Weekday Nights	85 %	6.9
All of the Above	78 %	n.a.

SOURCE: Physician Recruitment Supplement, 1991 Grantee Second Report, 136 reporting.

n.a. = Not applicable.

five percent expected physicians to take weeknight call, while slightly fewer (81 percent) expected physicians to take weekend call.⁵

Among the hospitals requiring physicians to be on call, the number of on-call periods per month was high. Among hospitals requiring weeknight coverage, physicians were expected to take call an average of 7 weeknights monthly, or approximately every third weeknight. A few grantees expected physicians to take call every weeknight (21 nights) per month. Among hospitals that required weekend coverage, physicians were expected to take call on average 3 out of 8 weekend days per month. A few grantees expected physicians to take call all 8 weekend days per month.

F. SUMMARY

The grantee hospitals were trying to recruit physicians needed by their communities. They recruited either to replace losses or to fill needs identified by a formal assessment. Grantees used a variety of recruiting inducements; the most popular was an income guarantee. The majority of grantees also offered to pay for relocation expenses, malpractice insurance premiums, and office space. Nearly one-half provided for fringe benefits and pay for continuing medical education.

The median income guarantees and average expected visits per week were in line with national practice opportunities for physicians in general or family medicine and pediatrics. However, the small number of grantees actually reporting expected visits per week makes us less confident of the generalizability of this finding. Of course, not *every* rural practice

⁵Some hospitals have hired physicians to relieve local doctors on the weekends.

opportunity is a viable choice for a physician. Some grantees offer an income guarantee of just 60,000 for a family practitioner -- or about 60 percent of the national median income, while others project that a family physician must make 230 visits per week--approximately 60 percent more visits per week than the national average for family practitioners. Finding practitioners to accept these positions will be difficult.

For surgical specialties, the guaranteed incomes offered and expected work loads were below national levels, indicating that grantees are looking for surgeons who will see fewer patients for less income. Finding surgeons who want this type of practice is likely to take longer; the shortage of rural surgeons may be the by-product of better practice opportunities elsewhere.

Grantees expected physicians to be on call for long hours (we do not have national data on this topic for comparison). For the average physician expected to take hospital call duty, the grantees expected 3 weekend days and 7 nights per month. This expectation may have been a significant obstacle to physician recruitment.

In summary, the average grantee community appeared to be offering physician candidates a competitive wage package. The average income guarantee, perquisites and the expected visits per week were comparable to those offered nationally. For surgical specialties, the grantee communities were offering lower guaranteed incomes--but expected them to see fewer patients. Since we don't have national data on call duty, we can not determine if grantees' expectations about call duty are unrealistic. However, the evidence suggests the average grantee community does have realistic expectations about what it has to offer physician candidates in order to successfully recruit one. If these grantees are unable to recruit

physicians, then their concern about a physician shortage is warranted.

III. SELF-REPORTED PROGRESS OF 1990 GRANTEES

The fifth progress report from the 1990 grantees (covering October 1, 1992, through March 31, 1993) was due on April 20, 1993. Of the 180 grantees active during this period, 164 returned their progress reports in time to be processed for this report. This chapter is based on the progress these grantees reported.

Since last September, only one 1990 grantee left the program. (See Table III.1.) Joel Pomerene Memorial Hospital in Ohio voluntarily terminated its grant. The remaining 179 hospitals are continuing with their grant projects.

A. PROGRESS OF 1990 GRANTEES

After 30 months, the 1990 grantees continued to make steady progress. Ten percent had completed all their activities, 56 percent were ahead of or on schedule, and 34 percent were a month or more behind schedule. (See Table III.2.) Compared to 6 months earlier, more 1990 grantees had completed all their project activities, and fewer were behind schedule.

The most frequent activity was staff recruitment (106 grantees) as well as training or staff development (74 grantees). Other frequent activities included equipment purchases (89 grantees) and education, prevention, or wellness programs (76 grantees).

The 1990 grantees continued to be most successful at completing those activities over which they had the most control, such as planning and market analysis and equipment purchases; one-half or more of these activities were completed. In contrast, the grantees fell behind schedule on activities over which they had only partial control. For example, projects

TABLE III.1
1990 GRANTEE STATUS

	Time Period						Cumulative 9/15/90 - 3/31/93
	At Award 9/15/90	Month 6 3/31/91	Month 12 9/30/91	Month 18 3/31/92	Month 24 9/30/92	Month 30 3/31/93	
Grantees (Hospitals) Receiving an Award	212 (211)	--	--	--	--	--	212 (211)
Discontinuations	2 ^a (2)	0 (0)	4 ^b (4)	0	17 ^f (5)	1 ^b (1)	24 (24)
Hospitals Ceasing Operations and Terminating in Period	0	0	2 ^c (2)	1 ^c (1)	3 ^g (3)	0	6 (6)
Projects Completed in Period	0	0	2 ^d (2)	0	0	0	2 (2)
Grantees (Hospitals) Remaining at End of Period	210 (209)	210 (209)	202 (201)	201 (200)	181 (180)	180 (179)	180 (179)
Other Changes Changed scope	0	0	0	0	0	2 ⁱ	2

^aSeymour Hospital, Texas
Frio Hospital Association, Texas

^aForest City Hospital, Iowa
Community Memorial Hospital, Iowa
Crest Medical Center, Florida

^bSt. Anthony Hospital, Oregon
Maude Norton Memorial City Hospital, Kansas
Tyler County Hospital District, Texas
Throckmorton Hospital, Texas

^bJoel Pomerene Memorial Hospital, Ohio

^cTri County Hospital, Michigan
Dade County Memorial Hospital, Missouri

^cGraham County Hospital, Kansas
United District Hospital, Minnesota

^dFrancis A. Bell Memorial Hospital, Michigan
Tippah County Hospital, Mississippi

^eNorth Claiborne Hospital, Louisiana

^fFlagstaff Medical Center, Arizona
Paris Community Hospital, Illinois
Jackson Parish Hospital, Louisiana
Colorado-Fayette Medical Center, Texas
(also a 1992 grantee)
Roane General Hospital, West Virginia
Vermillion County Hospital, Indiana
Adair County Memorial Hospital, Iowa
St. Joseph Memorial Hospital, Iowa
Bladen County Hospital, North Carolina
Mercy Hospital-Willard, Ohio
Marshall County Memorial Hospital, South Dakota
Hood General Hospital, Texas
South Limestone Hospital, Texas
Clay County Memorial Hospital, Texas
Memorial Hospital, Texas
Lynn County Hospital, Texas
Apple River Hospital, Wisconsin

TABLE III.2
PROJECT PROGRESS AFTER 30 MONTHS, BY OBJECTIVE:
1990 GRANTEES

Project Objective	Total Number	Percentage Completed	Percentage Ahead of Schedule	Percentage on Schedule	Percentage Behind Schedule by More than 1 Month
Recruiting	106	37 %	4 %	40 %	20 %
Equipment Purchase	89	57 %	1 %	29 %	12 %
Education, Prevention, or Wellness Program	76	17 %	1 %	76 %	5 %
Training or Staff Development	74	26 %	0 %	68 %	7 %
Construction or Renovation	58	48 %	0 %	24 %	28 %
Planning or Market Analysis	58	59 %	0 %	38 %	3 %
Rural Health Network	51	14 %	0 %	71 %	16 %
Outpatient Service	48	25 %	0 %	69 %	6 %
Clinic	31	16 %	3 %	65 %	16 %
Other	27	7 %	0 %	78 %	15 %
Emergency Medical Services	14	21 %	0 %	79 %	0 %
Other Health Service	13	54 %	0 %	31 %	15 %
Inpatient or Hospice Service	9	22 %	0 %	56 %	22 %
Swing Beds	8	38 %	0 %	50 %	13 %
Total	158 *	10 %	1 %	55 %	34 %

SOURCE: Fifth Background Report, 1990 grantees.

NOTES: Percentages may not total 100 percent because of rounding error. Only grantees who were still active at the end of 30 months are included. Progress is defined by the project's most delayed activity. For example, a project that is on schedule in only one activity and ahead of schedule in all the rest is defined to be on schedule. Each grantee represents one total project. Row percentages reported.

*Six hospitals did not report on progress in relation to the schedule.

involving construction or renovation were the most likely to be delayed; 28 percent were behind schedule at the end of 30 months. Further, 20 percent of recruitment projects were behind schedule.

B. PROJECT MODIFICATIONS

Two of the 1990 grantees modified parts of their projects. One grantee dropped its plan to implement a mobile mammography unit because of strict certification regulations and a lack of radiologic technologists. This hospital will instead use the grant to enhance medical transportation and home health care services. The second grantee abandoned its plan to establish a rural health clinic after a survey showed that the clinic would be detrimental to local physicians. Instead, this hospital will expand and enlarge its home health agency.

C. GRANT EXPENDITURES

HCFA awarded \$26,399,868 to the 1990 grantees for the 3-year grant period-- \$9,379,469 for the first year, \$9,016,501 for the second year, and \$8,003,898 for the third year.¹ Thirty months after HCFA made the awards, the reporting hospitals had spent \$20,803,191.

The 1990 grantees reported spending most of their grants on personnel and fringe benefits (43 percent). Cumulative expenditures by category included:²

¹Most of the 1990 grantees had awards of \$50,000 per year.

²These figures include information from all grantees reporting since the beginning of the program.

- Salary and fringe benefits: \$8,923,476 (43 percent)
- Equipment and capital: \$3,525,463 (17 percent)
- Nonphysician contracts: \$3,246,314 (16 percent)
- Physician contracts: \$1,553,491 (7 percent)
- Supplies: \$1,035,985 (5 percent)
- Travel: \$631,428 (3 percent)
- Other: \$1,887,034 (9 percent)

Capital items purchased by the 1990 grantees include computer equipment, diagnostic equipment, and construction materials. The 1990 grantees used grants to pay for such nonphysician contracts as physician recruiter fees and wages for financial consultants.

The 1990 grantees reported spending a cumulative average of \$109,738 per grantee.³ Since most grants were for the maximum of \$150,000, this suggests that the last 6 months will be very active. The grantees started their projects slowly, spending only \$15,387 per grantee during the first 6 months of their projects, but averaging \$23,588 every 6 months thereafter.

³The cumulative average spending per grantee was calculated by summing the average total amount spent per grantee across reporting periods.

IV. SELF-REPORTED PROGRESS OF 1991 GRANTEES

The third progress report from 1991 grantees (covering July 1, 1992, through December 31, 1992) was due on February 8, 1993. Of the 171 grantees active during this period, 166 returned their monitoring reports in time to be processed for this report. This chapter is based on the progress these grantees reported.

No grantees left the program in the past 6 months; 91 percent of the original 187 grantee hospitals are still active. (See Table IV.1.)

A. PROGRESS OF 1991 GRANTEES

The 1991 grantees continued to make steady progress at the end of 15 months. Two percent had completed all their activities, 60 percent were ahead of or on schedule, and 39 percent were a month or more behind schedule. (See Table IV.2.) Compared to 6 months earlier, fewer 1991 grantees were behind schedule, suggesting that grantees overcame earlier delays.

The grantees' most frequent activities were staff recruitment and training (105 and 93 grantees, respectively). Other frequent activities included equipment purchases (91 grantees), planning or market analysis (78 grantees), and education, prevention, or wellness programs (76 grantees).

In general, the 1991 grantees completed activities such as equipment purchases that did not require other organizations to make decisions. Twenty-eight percent of the 91 hospitals

TABLE IV.1
1991 GRANTEE STATUS

	Time Period				
	At Award 9/15/91	Month 3 1/1/92	Month 9 7/1/92	Month 15 1/1/93	Cumulativ e 1/1/93
Grantees Receiving an Award	187	—	—	—	187
Discontinuations	1 ^a	0	12 ^f	0	13
Hospitals Ceasing Operations and Terminating in Period	2 ^b	1 ^c	0	0	3
Projects Completed in Period	0	0	0	0	0
Grantees Remaining at End of Period	184	183	171	171	171
Other Changes					
Ceased hospital operations but is still a grantee	0	1 ^d	0	0	1
Changed scope	0	1 ^e	3 ^g	0	4

^aBonner General Hospital, Idaho

^bJohn MacDonald Hospital, Iowa
Moshannon Valley Community Hospital, Pennsylvania

^cRobersonville Medical Center, North Carolina

^dSt. John Hospital, Kansas

^eHardin County General Hospital, Illinois

^fGordon Hospital, Georgia
Fostoria City Hospital, Ohio
(also a 1992 grantee)
Lee Memorial Hospital, Texas
Walton Regional Hospital, Florida
Kentucky River Medical Center, Kentucky
Putnam County Hospital, Indiana
Claiborne County Hospital, Mississippi
Fallon Medical Complex, Montana
Hamilton County General Hospital, Texas
Mercy Hospital, North Dakota
Towner County Memorial Hospital, North Dakota
Day Kimball Hospital, Connecticut

^gLawrence County Hospital, Mississippi
Down East Community Hospital, Maine
Blue Ridge Hospital System, North Carolina

TABLE IV.2

PROJECT PROGRESS AFTER 15 MONTHS, BY OBJECTIVE:
1991 GRANTEES

Project Objective	Total Number	Percentage Completed	Percentage Ahead of Schedule	Percentage on Schedule	Percentage Behind Schedule by More than 1 Month
Recruiting	105	22 %	1 %	53 %	24 %
Training or Staff Development	93	7 %	1 %	89 %	3 %
Equipment Purchase	91	28 %	0 %	58 %	14 %
Planning or Market Analysis	78	18 %	4 %	72 %	6 %
Education, Prevention, or Wellness Programs	76	3 %	0 %	95 %	3 %
Rural Health Network	55	13 %	4 %	66 %	18 %
Clinic	55	9 %	2 %	66 %	24 %
Outpatient Service	47	15 %	2 %	62 %	21 %
Construction or Renovation	46	30 %	4 %	48 %	17 %
Inpatient or Hospice Service	27	15 %	0 %	67 %	19 %
Emergency Medical Services	22	9 %	5 %	86 %	0 %
Other	20	0 %	0 %	90 %	10 %
Swing Beds	11	0 %	0 %	64 %	36 %
Other Health Service	8	0 %	0 %	88 %	13 %
Total	163 *	2 %	1 %	59 %	39 %

SOURCE: Third Grantee Monitoring Report, 1991 grantees.

NOTES: Percentages may not total 100 percent because of rounding error. Only grantees that were still active at the end of 15 months are included. Progress is defined by the project's most delayed activity. For example, a project that is on schedule in only one activity and ahead of schedule in all the rest is defined to be on schedule. Each grantee represents one total project. Row percentages reported.

*Three hospitals did not report progress in relation to the schedule.

that planned equipment purchases completed them after 15 months. Because construction projects are typically delayed because of building permits and Certificate of Need requirements, it is somewhat surprising that 30 percent of the 46 hospitals planning construction or renovation had completed it after 15 months.

Grantees that implemented swing beds were the most likely to be delayed: 36 percent (three out of eight) were behind schedule. Also, just as with the 1989 and 1990 grantees, projects that involved recruiting were likely to be delayed: 24 percent of the recruiting projects and 24 percent of the clinic projects were behind schedule after 15 months.

B. GRANT EXPENDITURES

HCFA awarded \$15,871,589 to the 1991 grantees in the first 2 years--\$8,173,669 for the first year, and \$7,697,920 for the second year. Fifteen months after HCFA made the awards, the reporting hospitals had spent \$8,567,860.

The grantees reported spending more of their grants on personnel and fringe benefits (36 percent) than on any other category. Cumulative expenditures by category included:¹

- Salary and fringe benefits: \$3,045,648 (36 percent)
- Equipment and capital: \$1,556,516 (18 percent)
- Nonphysician contracts: \$1,531,765 (18 percent)
- Physician contracts: \$976,384 (11 percent)
- Supplies: \$381,534 (4 percent)

¹These figures include information from all grantees reporting since the beginning of the program.

- Travel: \$241,226 (3 percent)
- Other: \$834,787 (10 percent)

Capital items purchased by the 1991 grantees include computer equipment, facsimile machines, furniture, and construction materials. The 1991 grantees used grants to pay for such nonphysician contracts as rehabilitation services, fees for invited speakers, physician recruiter fees, and wages for financial consultants.

During the first 3 months, the cumulative average spending per 1991 grantee was \$6,337. Nine months into their projects, grantees spent a cumulative average of \$26,524; 15 months into their projects, they spent an average of \$49,346.² The monthly average expenditure nearly doubled in the past 6 months (compared to the first 3), suggesting that grantees overcame delays in getting their projects off the ground. One factor that helped overcome the initial delays is that the grantees have hired their project coordinators.

C. EFFECTS OF MANAGEMENT CHANGES ON PROJECT PROGRESS AND FINANCIAL STATUS OF THE 1991 GRANTEES

Earlier grantees cited management changes as the primary reason for disruptions in project progress. (See Giggie et al. 1993.) To investigate whether management changes affected grantees' progress, we interviewed 20 1991 grantees that had experienced such changes.³ These changes include joining or leaving a multihospital system, signing or

²The cumulative average spending per grantee was calculated by summing the average total amount spent per grantee across reporting periods.

³Interviews were conducted by telephone in spring 1993.

dropping a contract with a hospital management firm, and changes in administrator. Of the 20, 1 joined a multihospital system, 2 left multihospital systems, 3 added management contracts, 4 dropped management contracts, 7 had a change in administrator, and 3 had multiple administrator changes.⁴

In contrast to our expectations, only 3 of the 20 hospitals indicated that management changes disrupted their RHCT grant projects. In one of these hospitals, the new administrator was too busy to devote time to the grant project and the project fell behind schedule. Although management changes can cause projects to fall behind schedule, they do not necessarily do so.

Financial condition--either good (20 percent) or poor (80 percent)--motivated the 10 hospitals joining or leaving multihospital systems and management contract firms to undertake such changes. For example, one hospital added a management contract because of its poor financial condition in hopes that new management would lead to financial recovery. In contrast, another hospital dropped its management contract because the hospital was doing well financially and the board felt spending extra money on management fees was no longer necessary. None of the grantees indicated that the management affiliation change resulted from their grant project.

Executive recruiters have cited poor financial performance as a reason for administrative turnover, so it is not surprising that poor financial performance motivated hospitals to change

⁴The 7 grantees that added or dropped management contracts also had a change in administrator (not counted here.) In contrast, only 1 of the 3 grantees joining or leaving a multihospital system had a change in administrator.

their management affiliation (Moore 1990). It is surprising, however, that some hospitals dropped their management contracts because the hospital was performing well. Boards that take such actions provide incentives to management firms to refrain from making hospitals too profitable.

Half of the 20 hospitals reported that management changes had no effect on their financial status to date. The other half indicated that management changes produced positive financial effects. For example, one hospital improved its financial status by leaving a two-hospital system, because the other hospital was losing money and draining the first hospital financially. In contrast, another hospital bolstered its financial condition by forming a two-hospital system with a larger, financially stronger institution. Another hospital reported that a new administrator had improved the hospital's finances through strategic planning, tight budgeting, and innovative management techniques.

V. SELF-REPORTED PROGRESS OF 1992 GRANTEES

The first progress report from 1992 grantees (covering October 1, 1992, through December 31, 1992) was due on February 8, 1993. Of the 163 grantees active during this period, 151 returned their reports in time to be processed for this report. This chapter is based on the progress they reported.

Of the 163 hospitals awarded RHCT grants in September 1992, two hospitals, Alfalfa County Hospital in Oklahoma and Estelline Community Hospital in South Dakota, ceased hospital operations and left the program. (See Table V.1.)

A. CHARACTERISTICS AT AWARD

1. Ownership and Management

Because the goals and constraints of public and private nonprofit owners may differ, ownership can affect hospital operations (see Lindsay 1976; Weisbrod 1988; Weisbrod and Schlesinger 1981).¹ Hospital ownership can also influence how an RHCT grant project is implemented, including choice of project and its ultimate success or failure. Hospital ownership is an important element in the evaluation of the grant program.

¹Publicly owned hospitals face different constraints than privately owned ones. Administrators of private, nonprofit hospitals report to trustees of nonprofit corporations. In comparison, administrators of publicly owned hospitals report to hospital board members who, in turn, answer to the voting public.

TABLE V.1
1992 GRANTEE STATUS

	Time Period		
	At Award 9/15/92	Month 3 1/1/93	Cumulative 1/1/93
Grantees Receiving an Award	163	--	163
Discontinuations	0	0	0
Grantees Ceasing Operations and Terminating	0	2 *	2
Other Changes			
Ceased operations but is still a grantee	0	0	0
Changed scope	0	0	0
Grantees Remaining	163	161	161

*Alfalfa County Hospital, Oklahoma
 Estelline Community Hospital, South Dakota

At award, 52 percent of the 1992 grantees were publicly owned. (See Table V.2.) Approximately 46 percent were owned by a county government or hospital district, 5 percent were owned by a city government, and 1 percent (two hospitals) were owned by other public entities. The remaining grantees (48 percent) were private nonprofit hospitals. The percentage of publicly owned 1992 grantees was similar to the percentage of publicly owned 1989 grantees (51 percent of the 1989 grantees were publicly owned), but higher than the national percentage (42 percent of rural hospitals nationwide, including those with more than 100 beds, were publicly owned).² The RHCT grants program includes a disproportionate share of public hospitals because:

- Proprietary hospitals are not eligible for the program.
- Hospitals with more than 100 beds are not eligible for the program. Rural hospitals with more than 100 beds are predominantly private, nonproprietary facilities.³

Because one of the key goals of the RHCT grants program is to improve rural hospital management (for example, through strategic planning and management initiatives), it is important to identify managerial arrangements in place at the start of the grant program and evaluate the grant's effects on changes in management over the life of the program. Thus, a second important issue for the program evaluation is whether or not a hospital operates in a multihospital system or under a management contract. It has been argued that hospitals

²OTA-H-434, 1990, p. 113. Data from American Hospital Association's 1987 Annual Survey of Hospitals.

³OTA-H-434, p. 113.

TABLE V.2
MANAGEMENT CHARACTERISTICS AT TIME OF AWARD:
1989 AND 1992 GRANTEES

Characteristic	Distribution	
	1989 Grantees	1992 Grantees
Ownership		
Private, nonprofit	49.1 %	47.7 %
County/district government	40.0 %	45.8 %
City government	9.1 %	5.2 %
Other public	1.7 %	1.2 %
Grantees in Structured Multi-Hospital Systems		
Nonprofit	21.7 %	12.3 %
For-profit	1.1 %	1.9 %
Total	22.9 %	14.2 %
Grantees with Outside Management Contracts		
Nonprofit	14.9 %	8.4 %
For-profit	13.2 %	13.5 %
Total	28.2 %	21.9 %
Number of Grantees Reporting	175	155

SOURCE: First Background Report, 1989 grantees and 1992 grantees.

NOTES: For-profit hospitals were not eligible for grants, but nonprofit hospitals managed by for-profit organizations were eligible.

Because of differences in record keeping, some hospitals could not report all data elements. Percentages represent those hospitals reporting the data element.

with external managerial resources are better managed, but there is still skepticism among rural administrators about the loss of autonomy and the degree of interest multihospital systems and management companies have in local needs.⁴

At award, 14 percent of the 1992 grantees belonged to multihospital systems, while 22 percent had external management contracts. (See Table V.2.) These rates are comparable to those of hospitals nationwide. Nationally, 16 percent of the non-Federal, nonproprietary rural hospitals with fewer than 100 beds belonged to multihospital systems,⁵ and 19 percent of all rural hospitals operated under management contracts.⁶ In contrast, more of the 1989 grantees had external management arrangements--23 percent belonged to multihospital systems and 28 percent had external management contracts.

2. Beds, Occupancy Rates, and Services

Small hospitals with low utilization of their services are the most likely to close.⁷ Because one of the goals of the RHCT grants program is to avert hospital closure, the effect of the grant program on small hospitals is of particular interest in the evaluation of the program.

⁴OTA-H-434, p. 173.

⁵OTA-H-434, p. 134.

⁶OTA-H-434, p. 113. This figure includes proprietary and rural hospitals with more than 100 beds.

⁷U.S. General Accounting Office, Human Resources Division. *Rural Hospitals: Federal Efforts Should Target Areas Where Closures Would Threaten Access to Care*, GAO/HRD-91-41, Washington DC, February 1991

Like the 1989 grantees, most 1992 grantees (81 percent) had 50 or fewer staffed beds. (See Table V.3.) Because 1992 grantees are small institutions and many are located in isolated areas (30 percent of the 1992 grantees are in frontier areas), they were expected to have--and did have--low occupancy rates.⁸ Almost half had 25 percent or lower occupancy.

Examining some services with changing use patterns in recent years, we find a mixed pattern among the grantees. In particular:

- One hundred percent of both 1989 and 1992 grantees had emergency rooms--reflecting the high value communities placed on the availability of emergency rooms.
- More 1992 grantees had swing beds, compared with 1989 grantees (74 percent compared with 66 percent). The increase may have occurred because: (1) a slightly higher proportion of 1992 grantees had 50 or fewer beds and did not have to meet the swing bed provisions imposed for hospitals with more than 50 beds; and (2) the 1992 grantees made efforts to increase their occupancy.
- More 1992 grantees offered computed axial tomography (CAT) scanning services (72 percent compared with 55 percent of the 1989 grantees) and magnetic resonance imaging (MRI) (22 percent compared with 6 percent). This increase in CAT scanning and MRI services can be partially attributed to the increased availability of used equipment and mobile equipment--the latter allows hospitals to share equipment. Having used or shared equipment lowers the effective costs of providing such technology.
- Fewer 1992 grantees offered intensive care unit (ICU) services (58 percent compared with 64 percent of the 1989 grantees). The explanations for this decrease are: (1) the 1992 grantees are somewhat smaller hospitals, which are less likely to have an ICU because of the high costs involved; and (2) the national trend toward decreased inpatient services reduces the probability that small hospitals will have an ICU.

⁸Frontier hospitals are located in counties with six or fewer persons per square mile.

TABLE V.3
NUMBER OF BEDS, OCCUPANCY RATES, AND SERVICES
AVAILABLE AT AWARD: 1989 AND 1992 GRANTEES

Characteristic	1989 Grantees	1992 Grantees
Number of Staffed Hospital Beds		
1 to 25 beds	33.9 %	37.6 %
26 to 50 beds	45.2 %	42.9 %
51 to 75 beds	10.7 %	11.7 %
76 or more beds	10.1 %	7.8 %
Occupancy Rate		
Less than 10 percent	7.0 %	7.4 %
11 to 25 percent	33.9 %	41.2 %
26 to 40 percent	32.1 %	28.4 %
41 to 50 percent	16.4 %	11.5 %
51 to 75 percent	10.5 %	11.5 %
Greater than 75 percent	0 %	0 %
Selected Services		
Emergency room	100.0 %	100.0 %
Swing beds	65.8 %	74.0 %
Computed axial tomography	54.9 %	72.1 %
Intensive care unit	64.0 %	58.2 %
Magnetic resonance imaging	6.2 %	22.1 %
Number of Grantees Reporting	173	155

SOURCE: First Background Report, 1989 and 1992 grantees.

NOTE: Because of differences in record keeping, some hospitals could not report all data elements. Percentages represent those hospitals reporting the data element.

3. Finances

Hospitals with stronger finances are more likely to run their grant projects successfully, partly because financially sound hospitals are more likely to have additional funds to support and facilitate their projects. Moreover, managers of financially strong hospitals may have more time to devote to their projects because they spend less time on immediate financial problems.

In the year prior to the grant award, 1992 grantees had less patient service revenue and similar proportionate operating losses to the 1989 grantees. (See Table V.4).⁹ Further, the median ratio of total liabilities to total assets (a measure of relative debt burden) was substantially lower for the 1992 grantees than the 1989 grantees. Thus, the 1992 grantees started the program with a lower level of debt burden than the 1989 grantees, a lower revenue base, and roughly the same operating losses.

The lower debt burden does not imply that the 1992 grantees were financially stronger--debt level could be lower because 1992 grantees had older facilities in need of renovation. Furthermore, the lower debt burden may be a result of lower incidence of membership in multihospital systems. These systems improve members' access to capital and hence may increase liabilities. However, this lower debt burden does imply that the 1992 grantees were in a position to undertake larger projects that would require capital financing; hence, the grant program may have a larger financial effect on the grantees.

⁹Patient service revenue figures are not adjusted for inflation.

TABLE V.4
FINANCIAL INDICATORS IN FISCAL YEAR OF AWARD:
1989 AND 1992 GRANTEES

Characteristic	1989 Grantees	1992 Grantees
Median Total Liabilities: Total Assets	0.46	0.36
Median Operating Margin ^a	-0.04	-0.01
Median Revenue in Fiscal Year Before Award ^b	\$4,506,574	\$4,457,033
Medicare Reimbursement Status		
Sole community hospital	21.1 %	52.3 %
Disproportionate share hospital	9.1 %	28.9 %
Number of Grantees Reporting	175	155

SOURCE: First Background Report, 1989 and 1992 grantees.

NOTE: Because of differences in record keeping, some hospitals could not report all data elements. Percentages represent those hospitals reporting the data element.

*Defined as
$$\left(\frac{\text{Net Patient Service Revenue} - \text{Operating Costs}}{\text{Net Patient Service Revenue}} \right)$$

^bRevenue includes both operating and nonoperating revenues, inpatient as well as outpatient.

At award, more 1992 grantees qualified for special Medicare reimbursement status than their 1989 counterparts. As a result, the 1992 grantees may receive higher Medicare reimbursement during the grant periods, which may help them successfully complete their projects. Two factors accounted for the difference: first, the 1992 grantees are located in relatively more isolated geographic areas, increasing the probability that they qualify for special reimbursement status (Giggie et al. 1993). Second, an increased number of rural hospitals nationwide requested special reimbursement status between 1989 and 1992 because of favorable Medicare reimbursement rates.¹⁰ At award, 52 percent of the 1992 grantees were reimbursed as sole community hospitals and 29 percent were reimbursed as disproportionate share hospitals.

B. STARTUP OF THE 1992 GRANTEES

After 3 months, the 1992 grantees' most frequent activities were equipment purchases (83 grantees), training (80 grantees), and recruitment (73 grantees). Other frequent activities included planning or market analysis (65 grantees) and education, prevention, or wellness programs (49 grantees).

Three months into the grant program, close to one-third (45) of the 1992 grantees were behind schedule by more than a month in at least one activity. (See Table V.5.) Consistent with previous waves of grantees, the 1992 grantees fell behind schedule in activities over which

¹⁰Until April 1, 1990, the payment options for sole community hospitals reimbursed some eligible hospitals less than the usual Medicare prospective payment rates (OTA-H-434, p.65). After April 1, 1990, it became financially beneficial for more hospitals to have sole community hospital status; as a result, more hospitals sought such status.

TABLE V.5
**PROJECT PROGRESS AFTER 3 MONTHS,
BY OBJECTIVE: 1992 GRANTEES**

Project Objective	Total Number	Percentage Completed	Percentage Ahead of Schedule	Percentage on Schedule	Percentage Behind Schedule by More than 1 Month
Equipment Purchase	83	0 %	0 %	84 %	16 %
Training or Staff Development	80	0 %	3 %	91 %	6 %
Recruiting	73	0 %	3 %	69 %	29 %
Planning or Market Analysis	65	0 %	0 %	92 %	8 %
Education, Prevention, or Wellness Programs	49	0 %	4 %	78 %	18 %
Outpatient Service	43	0 %	7 %	86 %	7 %
Rural Health Network	42	0 %	0 %	88 %	12 %
Construction or Renovation	29	0 %	3 %	72 %	24 %
Clinic	24	0 %	0 %	88 %	13 %
Other	24	0 %	0 %	83 %	17 %
Inpatient or Hospice Service	13	0 %	8 %	77 %	15 %
Other Health Service	8	0 %	0 %	100 %	0 %
Emergency Medical Services	5	0 %	0 %	80 %	20 %
Swing Beds	4	0 %	0 %	100 %	0 %
Total	145 *	0 %	1 %	68 %	31 %

SOURCE: First Monitoring Report, 1992 grantees.

NOTES: Percentages may not total 100 percent because of rounding error. Only grantees that were still active at the end of 3 months are included. Progress is defined by the project's most delayed activity. For example, a project that is on schedule in only one activity and ahead of schedule in all the rest is defined to be on schedule. Each grantee represents one total project. Row percentages reported.

*Six hospitals did not report progress in relation to the schedule.

they had incomplete control, such as recruitment and construction. Twenty-nine percent of the 73 grantees pursuing recruitment were behind schedule. Further, 24 percent of the 29 hospitals pursuing construction or renovation projects were behind schedule.

C. GRANT EXPENDITURES

HCFA awarded \$6,855,659 in first-year RHCT grants to 163 hospitals in fiscal 1992. Three months after HCFA made the awards, the reporting hospitals had spent \$640,617.

The 1992 grantees reported spending most of their grant funds on personnel costs and fringe benefits (52 percent). Cumulative expenditures by category included:

- Salary and fringe benefits: \$330,341 (52 percent)
- Equipment and capital: \$132,455 (21 percent)
- Nonphysician contracts: \$83,863 (13 percent)
- Physician contracts: \$20,823 (3 percent)
- Supplies: \$17,168 (3 percent)
- Travel: \$16,877 (3 percent)
- Other: \$39,090 (6 percent)

Capital items purchased by the 1992 grantees include computer equipment, laparoscopic equipment, and a van with a cellular phone. The 1992 grantees used grant funds to pay for such nonphysician contracts as wages for financial consultants and physician recruiter fees.

During their first 3 months, 3 of the 151 reporting hospitals (2 percent) spent more than 75 percent of their first-year grants. Not surprisingly, these hospitals also reported

considerable progress on their grant projects. One hospital spent 85 percent of its first-year grant on newly recruited nurses and nurse practitioners. The second spent all of its first-year award on a mammography unit.¹¹ The third spent its entire award on a newly recruited physician and physician assistant. Most 1992 grantees (88 percent) spent 25 percent or less of their first-year awards in the 3-month period, consistent with the elapsed period.

D. EFFECTS OF MANAGEMENT CHANGES ON PROJECT PROGRESS AND FINANCIAL STATUS OF THE 1992 GRANTEES

Previous grantees have cited administrative turnover as a reason for project delays (Giggie et al. 1993). We interviewed 16 of the 1992 grantees with administrator changes to determine if these shifts affected their project progress.¹²

Contrary to our expectations, only one-third of the 16 grantees indicated that their administrator change caused their projects to fall behind schedule. At these hospitals, new administrators were too busy to give the projects top priority. In contrast, administrative turnover did not cause project disruptions for most grantees, because either a consultant or a staff member other than the administrator was the project coordinator. Continuity in project coordinator seems to be key to project progress.

¹¹A grantee may not spend more than one-third of its RHCT grant for capital-related costs (Omnibus Budget Reconciliation Act of 1987 [P.L. 100-203], Section 4005[e]). Because this hospital expects all future expenses to be for noncapital items, it did not violate the legislation.

¹²Grantee administrators were interviewed by telephone after they had submitted their first reports in March 1993.

Improvement in financial status may help grantees achieve their project goals. Three-quarters (12) of the 16 grantees indicated that their hospitals' financial status had improved since the arrival of a new administrator. New administrators bettered finances either by recruiting new physicians or implementing management changes that enhanced hospital financial performance. These management changes included streamlining departments, reducing hospital staff, reorganizing departments, freezing salaries, and improving administrator communication with medical staff.

VI. SUMMARY OF PROJECT PROGRESS

The grantees reported that they made solid progress on their projects. The 1990 grantees have completed numerous activities including planning and market analysis, equipment purchases, and construction. The 1991 grantees are actively pursuing a number of activities and the majority are on schedule. The 1992 grantees, just 3 months into their projects, have started a number of activities and two-thirds of these are on or ahead of schedule.

Examining the grantees that had management changes we find that management changes were less disruptive to project progress than expected. Only 3 of the 20 1991 grantees and 5 of the 16 1992 grantees reported that their management changes had slowed project progress. Projects that were led by the hospital administrator fell behind schedule when the administrator left, but projects led by other hospital staff or outside consultants generally remained on schedule after a change in management.

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